

# Python Fun(damentals)

## Poetry Usage & Setup

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Obscurity Labs

- \* Directory Structure
- \* Config Files



# Python Poetry Package Manager

The venv module provides support for creating lightweight “virtual environments” with their own site directories, optionally isolated from system site directories.

- Near all the same capabilities of `pipenv`.
- Poetry comes with an exhaustive dependency resolver.
- Poetry either uses your configured `virtualenvs` or creates its own to always be isolated from your system.
- The most intuitive CLI on the market.
- Uses the newest PEP standards.
- Fully managed build systems and publishing of Python modules.
- The Package manager we will use going forward.

# Using poetry

poetry provides a handy set of tools to work with virtualenvs locally.

We will start by building our very own env as we did with other tools, the only difference is poetry will even scaffold the project for you:

```
$ poetry init
Author [None, n to skip]: n
License []:
Compatible Python versions [^3.7]:

Would you like to define your main dependencies interactively? (yes/no) [yes] no
Would you like to define your development dependencies interactively? (yes/no) [yes] no
Generated file

[tool.poetry]
name = "01_python3_tooling_build_systems"
version = "0.1.0"
...:SNIP:...

Do you confirm the generation? (yes/no) [yes] yes
```

## Using poetry Cont.

We now can start adding packages to our new env :

```
$ poetry run python --version
poetry
```

We can also go into an interactive shell as we did with pipenv :

```
$ poetry shell
poetry/virtualenvs/01-python3-tooling-build-systems-3FZumH0Q-py3.7/bin/activate
(01-python3-tooling-build-systems-3FZumH0Q-py3.7) $
```

# Installing packages with poetry

We now can start adding packages to our new env :

```
$ poetry add requests  
Using version ^2.23.0 for requests
```

```
Updating dependencies  
Resolving dependencies... (0.2s)
```

```
Writing lock file
```

```
Package operations: 5 installs, 0 updates, 0 removals
```

- Installing certifi (2020.4.5.1)
- Installing chardet (3.0.4)
- Installing idna (2.9)
- Installing urllib3 (1.25.9)
- Installing requests (2.23.0)

# Lab\_5.py

## Tasking

Using the new `poetry` command perform the following:

1. Go into the `02_python3_tooling_build_systems/` folder, notice we provided a `pyproject.toml` already.
2. Using `poetry` install `pytest` .
3. Ensure you have a `pyproject` is now updated with the new package.

## Testing your work

**NOTE:** you should see Green `PASS` statements indicating you completed the lab

```
$ poetry shell
$ python lab_5.py
```